WHAT IS CLAIMED IS:

1. An apparatus for estimating frequency errors in a locally generated clock signal for GPS receivers, comprising:

a local oscillator for generating the clock signal and a sampling clock;

a sampling block coupled to the local oscillator, for receiving a reference signal and the sampling clock and for generating reference sample signals; and

a local oscillator frequency error estimator, for generating an error estimate between the reference signal and the local oscillator sampling clock.

2. The apparatus of claim 1, wherein the error estimate approximates a frequency difference between the reference signal and the clock signal.

3. The apparatus of claim 2, wherein the sampling block comprises a block selected from a group comprising a dedicated analog-to-digital converter and an integrated circuit (IC) input pin.

4. The apparatus of claim 3, wherein the local oscillator frequency error estimator is selected from a group comprising a discrete fourier transform, a frequency detector, and a phase detector.

5. A method of calibrating a local oscillator in a mobile GPS receiver, comprising:

receiving a reference signal from a source providing the reference signal;

sampling the reference signal and a clock signal from the local oscillator and providing a second reference signal; and

estimating the error in the local oscillator using the second reference signal.

6. The method of claim 5, wherein the sampling and estimating are performed by software instructions to a microprocessor.